

tary, lateral spikelets, 2–3 one always pedunculate, 3-flowered glumes imbricated, ovate-lanceolate, margins scarious. Bristles 6 shorter than the style, stigmas 3; nut triquetrous.

Hab.—North Island—at remarkable saline springs, Glenburn, East Coast. Forming large masses in the immediate vicinity of the springs. Allied to *S. pauciflorus*, Hook, f., but a much smaller, less tufted plant, with narrower, shorter spikelets, and broader glumes.

AGROSTIS MUSCOSA, n.s.

A small grass forming wide patches, not more than one inch in height. Root creeping. Leaves longer than the culms, filiform, flaccid, more or less recurved, ligule minute lacerate. Panicle hidden among the leaves, recurved, $\frac{1}{4}$ "– $\frac{1}{2}$ " in height, few flowers. Empty glumes, equal, scabrid at the margin. Flowering glumes, ovate, truncate. Pale O. Lodicule acute. *Agrostis canina* and *B. subulata*; "Hand Book N.Z. Flora," in part. *Agrostis subulata*, t. XX. "Buchanan N.Z. Grasses."

Hab.—South Island. Broken River basin, and other places in Canterbury. Lake district of Otago. Probably not uncommon in mountain districts in the South Island, but easily overlooked. In the "Hand Book of the N. Z. Flora," this species is confused with *Agrostis subulata*. Mr. Buchanan has fallen into the same error in his "Indigenous Grasses of New Zealand," where he figures the present plant as *Agrostis canina*, *L. B. subulata*, and unaccountably identifies it with the *Agrostis subulata* of "Hooker's Flora Antarctica," t. LIII., a much larger grass with erect panicles.

This species is probably common in the South Island, although I have only collected it in the districts mentioned. So far as I am aware it has not been observed in the North Island.

Agrostis subulata, Hook, f. "Fl. Antarctica," t. LIII., differs from our plant in the erect keeled leaves, which are narrow and slightly keeled, never filiform; the panicle is much larger, erect, never recurved, and although hidden amongst the leaves at first, yet when fully matured it slightly exceeds them in length.

ART. LI.—Description of a new species of *Thysanothecium* collected by Mr. Buchanan during his recent expedition to the Southern Alps.

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Plate XVII.

AMONG Mr. Buchanan's plants, lately collected in the Southern Alps, there is a remarkable Lichen gathered on Mount Aspiring Range at an elevation

of about 4,000 feet. It belongs to the genus *Thysanothecium* of which there were only two species previously known, both of which were found in Western Australia by Mr. Drummond, the Colonial Botanist. It is worthy of notice that the New Zealand plant was gathered on a glacier, while those in Western Australia grew on burnt-up timber. As these Lichens are exceedingly interesting to botanists I have made drawings and drawn up description from Mr. Buchanan's specimen, and have named it *Thysanothecium Buchananii* in recognition of that botanist's valuable contributions to the botany of the Southern Alps.

Thysanothecium buchanani, sp. n.

Thallus in duabus partibus formatus. 1° Pars horizontalis lobulato-squamulosa e viride lurida, squamulis in crusta granulosa areolata congestis. 2° Podetia erecta brevia in apothecia foliaceâ dilatata (alt. circa 6 mm.).

Apothecia sciphi compressi instar plicata, nonnihil in limbum planum producta, rigida apice inflexa et granulosa, disco testaceo-rufescenti receptaculum thallinum reticulatum omnino tegenti; hymenium incolor excipulo proprio luteolo strato gonimico imposito enatum, paraphysibus rectis capillaribus septatis adglutinatis apice non dilatatis. Sporæ 8næ una serie dispositæ sphericæ incolores diam. 0.13 mm.

Corticale receptaculi stratum ex elementis filamentosis directis ad laterem constitutum.

Supra molem nivium frigoribus congelatam in summis montibus ("Aspiring Range"), alt. 4,000 pedes.

EXPLANATION OF PLATE XVII.

- Fig. 1. Spores and Paraphyses $\times 470$.
 2. Gonidium $\times 470$.
 3. Foliateus apothecium—Hymenium within the pseudosecyphus, $\times 2$.
 4. Longitudinal section of apothecium, showing hymenium (a); proper excipulum (hypothecium) (b); white medullary layer with gonidia (c); colourless corticular layer (d), $\times 30$.